

COVID-19 Clinical Q&A

April 9, 2020

About this presentation

On **Thursday, April 9**, Dr. Ben Kruskal, NEQCA Medical Director and infectious disease specialist, pre-recorded a webinar for NEQCA's LCO Leadership including Presidents, Administrators and Medical Directors to provide an update on COVID-19. Disclaimer: The information in this presentation is relevant as of 4/9/20. The situation, however, is changing rapidly. To ensure you have the latest information on COVID-19, use the resources below:

- **Stay Informed:** [Enroll in MDPH COVID-19 Text Notifications](#)
- [COVID-19 Cases in Massachusetts \(Map\)](#)
- [COVID-19 Cases in Mass: Mass DPH \(Data\)](#)
- [The COVID Tracking Project](#)
- **Global and National impact:** [Centers for Disease Control](#)
- **Situation in Massachusetts:** [Massachusetts Department of Public Health](#)
- **COVID-19 Resource Center:** [Infectious Diseases Society of America](#)
- **Travel Restrictions:** [U.S. State Department](#)

COVID-19 Situation Update

Ben Kruskal, MD

Medical Director

Coronavirus COVID-19 Cases in Massachusetts

Total Cases

16,790

Cases by County

3,600 SUFFOLK

3,545 MIDDLESEX

2,103 ESSEX

1,778 NORFOLK

1,327 PLYMOUTH

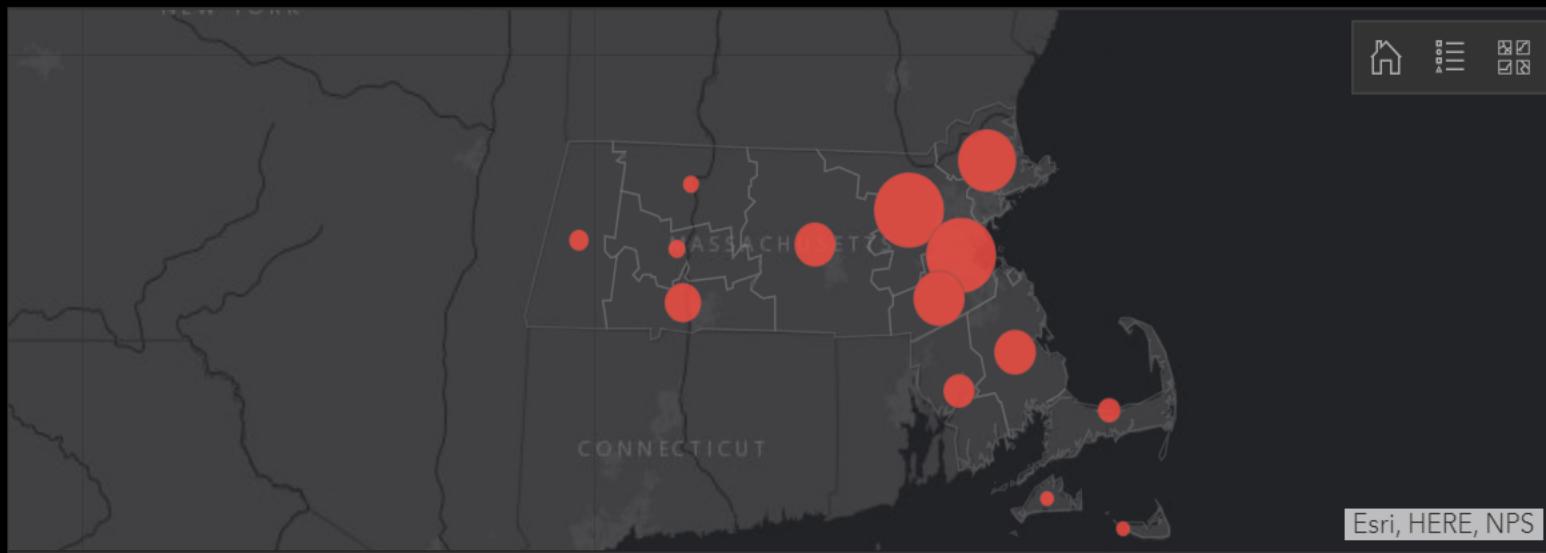
1,296 WORCESTER

1,081 HAMPDEN

835 BRISTOL

423 BARNSTABLE

281 BERKSHIRE



Esri, HERE, NPS

Total Cases Over Time



Total Cases

Daily New Cases

Total Deaths

433

Sex

8,872 Female

7,874 Male

44 Unknown

Hospitalization

10,490 Under investigation

4,717 Patient was not

Last updated on
4/8/2020

Data from Massachusetts Department of

[Link to map on NEQCA.org](#)

Goal: To Save Lives

- Hospitals keep critically ill patients alive.
- By **keeping unnecessary visits out of the EDs**, our practices give the hospital more capacity to deal with more severe emergencies.
 - Constraint: PPE availability
 - Nobody should be seeing possible COVID-19 (acute respiratory symptoms and/or fever without other localizing symptoms) without mask, gloves (Eye protection, Gown)
- **Keep practices open**
 - Continue to provide care
 - Survive financially

Avoiding ER visits

- **Collaboration with local specialists to avoid ER visits**
 - Identify, connect with key specialists
 - Orthopedics (Injuries/?fractures; ?Plain films available?)
 - General surgery (Lacerations, FB)
 - Ophthalmology (FB, injury, acute visual changes)
 - ENT (FB, acute hearing loss)
 - Make masks available in small numbers when requesting they see your non-respiratory patient
- **Remember Shields available for urgent CT/MRI**
- NEQCA Central looking into home care for IV infusions (e.g., fluids, some meds)

COVID-19 Transmission/Precautions

- **Route of transmission: Respiratory droplets**

- simple facemask ("Surgical mask") is effective
With Eye protection, gloves (Gowns)

- **N95 NOT needed in outpatient setting (NO Nebulizers)**

- **Surfaces +/-**

- Soaps and any surface disinfectant are effective
 - Includes quaternary ammonium (quats like Lysol/benzalkonium), 70% alcohol, dilute bleach (1:100 for this purpose), peroxide and any soap or detergent meant for surface cleaning



What about cloth masks?

- Cloth masks

- A few studies suggest these are **significantly less effective** at preventing other respiratory viral infections or penetration of particulates than standard disposable surgical masks
- **“Has to be better than nothing”**
 - Good for source control
 - Potential risk: outside surface gets contaminated, touch can infect us

- PPE from state?

- <https://www.mass.gov/info-details/guidance-for-requesting-personal-protective-equipment-ppe>

Testing for COVID-19 – Part 1

- **Currently PCR is only technique available**
 - Detects viral RNA fragments, not intact/transmissible virus
- **Why test/who to test?**
 - ONLY symptomatic individuals (negative in asymptomatic doesn't mean they're not incubating)
 - Who they have exposed? (Public health relevance; HCW, first responder, congregate settings like SNFs, group homes, etc)
 - Very sick patients (relevant inpatient for cohorting, infection control, possible clinical trials)
 - High risk outpatients (follow more closely)
 - Contact tracing and quarantine/isolation: DPH/Partners in Health/Community health centers

Testing for COVID-19 – Part 2

- **Testing options**

1. Specimen collection at full service testing sites ([list on DPH website](#), updated daily), test sent by them to their preferred lab
 - Pt can be tested based on clinician order if pre-screened by clinician for eligibility
2. *Specimen collection in office*, test run by Quest (or other commercial lab)
3. *Specimen collection in office*, test run at Tufts Medical Center
4. *Specimen collection in office*, test run in office IF YOU HAVE the Alere/Abbott ID NOW system (used for rapid POC tests for flu, strep, RSV, and now Covid-19)
 - Swabs becoming more available—from labs and suppliers (Also 3d printing)
 - Viral transport medium available from labs (Quest, Tufts)

COVID-19 PCR: False positives and negatives

- **False positives**

- Residual viral fragments persisting on the mucosa after transmissible virus is all gone (Same principle applies to other tests for infection using PCR detection, e.g. Chlamydia): we don't know how long
- Laboratory contamination

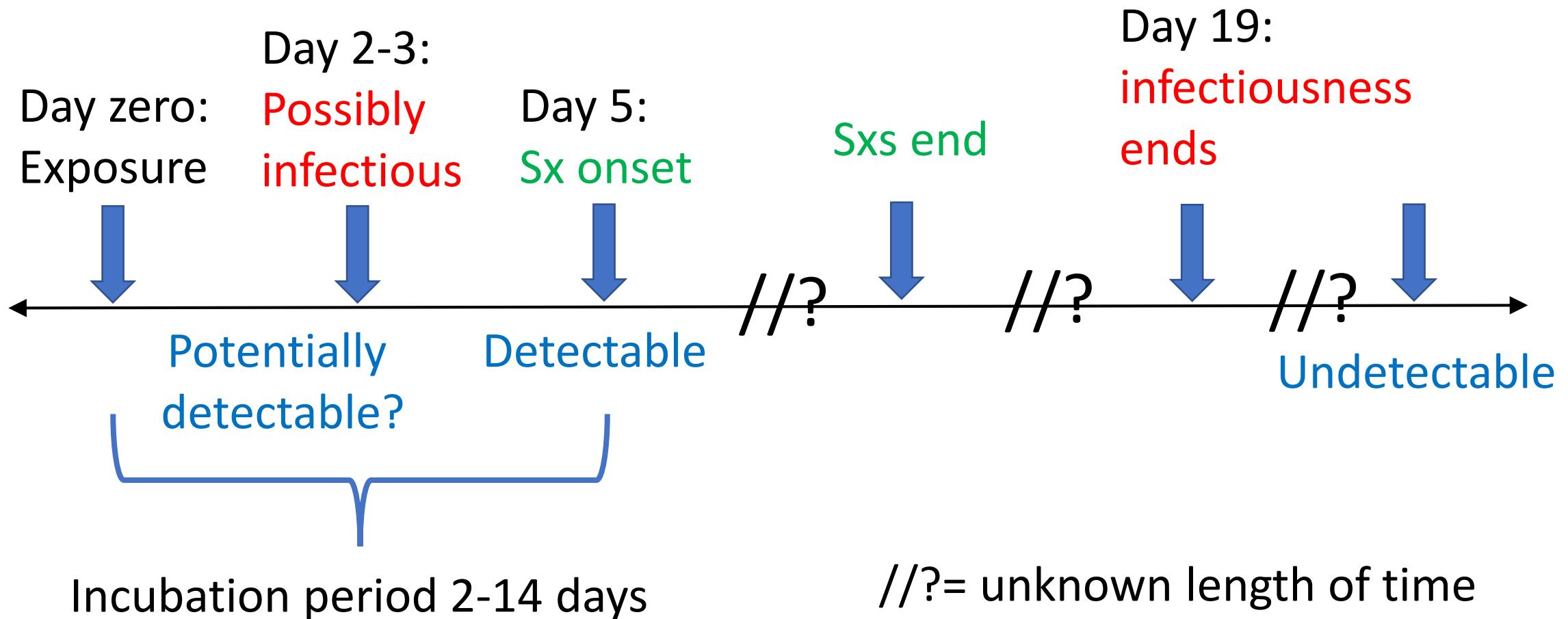
- **False negatives**

- Swabbing technique
- Choice of anatomic site (Sensitivity highest: NP > OP > Nose)
- PCR inhibitors (from pt, from inappropriate swab)
- Timing: during early incubation period

Immunity?

- Not well characterized yet for SARS-CoV-2/Covid-19 but...
- In comparison with other respiratory viral infections
 - The reason we recover is because an immune response occurs and eradicates the virus
 - Duration of immunity varies; some lifelong, some months or 1-2 years
 - Antibodies (most easily measured component of immune response) may or may not be the protective mechanism
 - Convalescent plasma as treatment
 - Early reinfection likely very rare
 - Apparent cases are likely false positives: residual viral fragments persisting on the mucosa after transmissible virus is all gone

Timeline of SARS-CoV-2 infection



Remote assessment of respiration

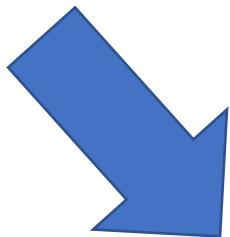
- Non-medical grade pulse oximeters and apps
 - Inexpensive pulse oximeters sold online
 - Pulse oximetry smartphone apps
 - I DO NOT RECOMMEND use at this time
- Clinical triage tools
 - None validated; some expert opinions
 - When **Telehealth** used (video visits), remember observation as well as listening to speech

Potential Treatments

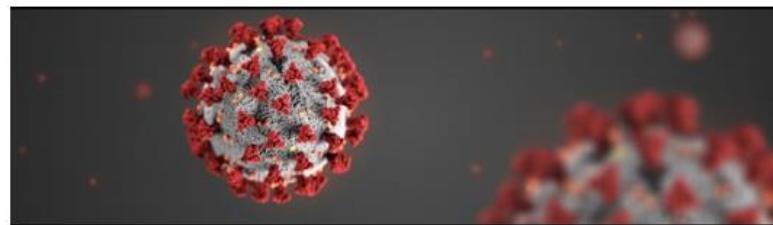
- NOT RECOMMENDED: hydroxychloroquine and chloroquine (+/- azithromycin)
 - Real risks!
 - No real evidence of efficacy. Initial “studies” deeply flawed.
- Investigational IV: remdesivir, biologic anti-cytokine storm (tocilizumab, sarilumab)
- Convalescent plasma

NEQCA COVID-19 Website

- Updated daily
- Upcoming Programs
- Statistics and Expert Resources
- Clinical Guidelines and Tools
- Medical Practice Sustainability
- Telehealth Services
- Broad Strategies To Combat COVID-19
- Resources for Patients
- Wellbeing for All
- Recorded Webinars, Presentations



HELPFUL COVID-19 INFORMATION

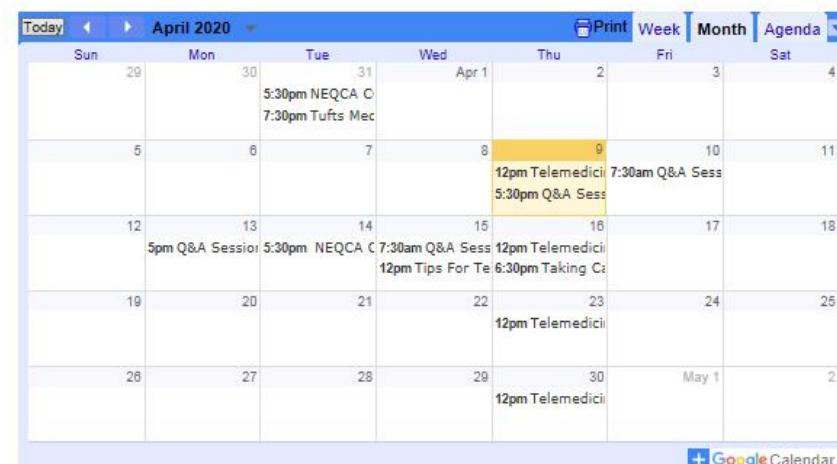


Last updated: 4/8/2020

In collaboration with our colleagues at [Tufts Medical Center](#) and [Floating Hospital for Children](#), NEQCA is closely following the spread of the respiratory disease COVID-19. We encourage you to use this page as a resource to ensure you have the latest information.

NEQCA's priorities include: providing [clinical support](#) for our LCO leadership and Network providers with COVID-19 protocols and telehealth, [operational support](#) to keep our practices open and continuing to care for patients and [economic support](#), to help physicians weather the economic impact of COVID-19. Information about how to apply for loans and address human resources matters are being provided through instructional webinars and phone consultations.

PROGRAMS FOR OUR NETWORK



Stay Safe ... and THANK YOU!
